

**Dr. CHRISTINA LEE TAGUE, Bren School of Environmental Science and Management,  
University of California, Santa Barbara, 93117**

**RESEARCH INTERESTS**

Eco-hydrology, climate and land use change impacts, environmental modeling, model calibration, evaluation and development

**EDUCATION**

<u>Institution</u>	<u>Attended</u>	<u>Degree</u>	<u>Major Field</u>
University of Toronto, Canada	1995-99	Ph.D.	Geography
University of Toronto, Canada	1992-94	M.S.	Geography
University of Waterloo, Canada	1985-89	B.Eng.	Systems Design Engineering

**APPOINTMENTS**

<u>Institution</u>	<u>Rank</u>	<u>Dates</u>	<u>Major Subject</u>
UC Santa Barbara	Assistant Professor	current	Env. Science
San Diego State University	Associate Professor	2005 to 2006	Geography
San Diego State University	Assistant Professor	2000 to 2005	Geography
UCAR	Post-Doc	1999 to 2000	Geography

**PUBLICATIONS (Last 3 years)**

- Hope, A.S., Tague, C., and Clark, R.E. (in press) Post-Fire Vegetation Recovery of California Chaparral Using TM/ETM+ Time-Series Data“. *International Journal of Remote Sensing*.
- Sanford SE, Creed IF, Tague CL, Beall FD, Buttle JM. (in press) Scale-dependence of natural variability of flow regimes in a forested landscape. *Water Resources Research*.
- Tague, C., Farrell, M., Grant, G., Lewis, S., Rey, S. (in press) “Hydrogeologic controls on summer stream temperatures in the McKenzie River basin, Oregon”, *Hydrological Processes*
- Tague, C. (2006) “Heterogeneity in hydrologic processes: A terrestrial hydrologic modeling perspective”, *Ecosystem Function in Heterogeneous Landscapes*, Lovett, G. M., Jones, C. G., Turner, M. G. and Weathers, K. C. (eds), Springer-Verlag, NY.
- Tague, C., Band, L., Franklin, J. (2006) “Terrestrial Ecosystems (patch dynamics, disturbance regimes e.g. fire, drought, soil development, agricultural and forestry management and water resources)”, *Encyclopedia of Hydrologic Science*, Anderson, M. (eds), Wiley, Bristol, UK.
- Tenebaum, D., Band, L., Kenworthy, S. and Tague, C. (2006) “Analysis of Soil Moisture Patterns in Forested and Suburban Catchments Using High-Resolution Photogrammetric and LIDAR Digital Elevation Datasets”, *Hydrological Processes*, 20:2, 219-240.
- Zierl, B., Bugmann, H. and Tague, C. (2006) Evaluation of water and carbon fluxes in the ecohydrological model RHESSys“, *Hydrological Processes*, 12, DOI:10.1002/hyp.6540.
- Band, L.E., and Tague, C. (2005) “Feedbacks and Coupling between Water, Carbon and Nutrient Cycling at the Hillslope Scale”, *Coupled Models for the Hydrological Cycle- Integrating Atmosphere, Biosphere, and Pedosphere*, Bronstert, A., Carrera, J., Kabat, P., and Lütke-meier, S. (eds.) Springer.
- Mitchell, S. W., Csillag, F., Tague, C. (2005), “Impacts of spatial model definition on prediction uncertainty of spatial environmental models: grassland productivity in Grasslands National Park Canada, *Transactions in GIS*, 9(3), doi:10.1111/j.1467-9671.2005.00225.x

- Swinarski, R, Tague, C., Barahs, G. (2005) Vector quantization and rough set method in modeling of spatial geographical systems, *Proceedings of the 2005 World Congress in Applied Computing*, Las Vegas, Nevada, USA, June 20-23, 2005.
- Tague, C.L, and Grant, G. (2004) “A geological framework for interpreting the low flow regimes of Cascade streams, Willamette River Basin, Oregon”, *Water Resources Research*, 40, W04303, doi:10.1029/2003WR002629
- Tague, C. and Band, L. (2004) “RHESys: Regional Hydro-ecologic simulation system: An object-oriented approach to spatially distributed modeling of carbon, water and nutrient cycling”, *Earth Interactions*, 8:19, 1-42.
- Tague, C., McMichael, C., Hope, A., Choate, J., Clark, R. (2004) “Application of the RHESys model to a California semi-arid shrubland watershed”, *Journal of American Water Resources*, 40(3), 575-589.

### **ADDITIONAL RELEVANT PUBLICATIONS**

- Benda, L., Poff, L.N, Tague, C., Palmer, M.A., Pizzuto, J., Bockstael, Cooper, S., Stanley, E., Moglen, G. (2002) “ Avoiding train wrecks in the use of science in environmental problem solving”, *Bioscience*, 52(12), 1127-1136.
- Tague, C. L., Band, L.E. (2001) “Evaluating Explicit and Implicit Routing for Catchment Scale Models of Forest Hydrology”, *Hydrologic Processes*, 15, 1415-1439.
- Tague, C.L. and Band, L.E. (2001) “Simulating the impact of road construction and forest harvesting on hydrologic response using RHESys”, *Earth Surface Processes and Landforms*, 26(2), 135-151.
- Band, L.E., Tague, C.L., Groffman, P. (2001) “Forest ecosystem processes at the watershed scale: Hydrological and ecological controls of nitrogen export”, *Hydrologic Processes*, 15, 2013-2028.
- Band, L.E., Tague, C.L., Brun, S.E., Tenenbaum, D.E., Fernandes, R.A., (2000) “Modeling watersheds as spatial object hierarchies: Structure and Dynamics”, *Transactions in GIS*, 181-196.

### **SYNERGISTIC ACTIVITIES**

- Principal developer of RHESys eco-hydrologic model, providing model development, testing, user support for community; maintained at UC Santa Barbara  
Website: <http://fiesta.bren.ucsb.edu/~rhessys/>
- Visiting Scientist, Monterey Bay State University/NASA Ames (collaboration with Rama Nemani), 07/01/05-09/01/05, project involved data assimilation (for both downscaling and corroboration) between RHESys model and MODIS vegetation and snow products for Yosemite National Park

### **PROFESSIONAL ORGANIZATIONS**

- Association of American Geographers, American Geophysical Union, Ecological Society of America